

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date: 12-Aug-2021

Revision Number: 1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product Name:** Kluthe Lösin 100  
**Article number:** 061010330000

**UFI:** -

**Hazard components for labeling:** Contains n-Butyl acetate, Propylene glycol monomethyl ether acetate, Propylene glycol monomethyl ether, xylene (reaction product of xylene and ethylbenzene)

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Product categories [PC]:** PC9 - Coatings and paints, fillers, putties, thinners

### 1.3. Details of the supplier of the safety data sheet

**Supplier:** conti coatings GmbH  
Feldstrasse 55  
D - 46149 Oberhausen  
Telefon: +49 208/ 9948-0  
Telefax: +49 208/ 650625  
www.conticoatings.com

**E-mail address:** sds.ob@kluthe.com

### 1.4. Emergency telephone number

**Emergency Telephone:** +49 177 / 214 4737 (24 h)

<b>Emergency Telephone - §45 - (EC)1272/2008</b>	
<b>Europe</b>	112
<b>Austria</b>	+43 1 406 43 43 (Giftinformationszentrale)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

<b>Flammable liquids</b>	Category 2 - (H225)
<b>Aspiration hazard</b>	Category 1 - (H304)
<b>Skin corrosion/irritation</b>	Category 2 - (H315)
<b>Serious eye damage/eye irritation</b>	Category 1 - (H318)
<b>Specific target organ toxicity (single exposure)</b>	Category 3 - (H335,H336)
<b>Chronic aquatic toxicity</b>	Category 3 - (H412)

### 2.2. Label elements

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Signal word: **Danger**

## Hazard components for labeling:

Contains n-Butyl acetate, Propylene glycol monomethyl ether acetate, Propylene glycol monomethyl ether, xylene (reaction product of xylene and ethylbenzene)

## Hazard statements:

H225 - Highly flammable liquid and vapor.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H318 - Causes serious eye damage.  
H335 - May cause respiratory irritation.  
H336 - May cause drowsiness or dizziness.  
H412 - Harmful to aquatic life with long lasting effects.

## EU Specific Hazard Statements:

### Precautionary Statements - EU (§28, 1272/2008):

P101 - If medical advice is needed, have product container or label at hand  
P102 - Keep out of reach of children  
P271 - Use only outdoors or in a well-ventilated area  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P405 - Store locked up  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P370 + P378 - In case of fire: Use dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam to extinguish  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

## Additional information

This product requires child resistant fastenings when supplied to the general public unless the product is placed on the market in the form of aerosols or in a container with a sealed spray attachment. Placed on the market in aerosol containers or in containers fitted with a sealed spray attachment.

## 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

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Chemical name	CAS No	EC No	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Weight-%
n-Butyl acetate	123-86-4	204-658-1	01-2119485493-29	Flam. Liq. 3 (H226) STOT SE 3 (H336) (EUH066)	10 - < 25
Propylene glycol monomethyl ether acetate	108-65-6	203-603-9	01-2119475791-29	Flam. Liq. 3 (H226) STOT SE 3 (H336)	10 - < 25
Propylene glycol monomethyl ether	107-98-2	203-539-1	01-2119457435-35	Flam. Liq. 3 (H226) STOT SE 3 (H336)	10 - < 25
xylene (reaction product of xylene and ethylbenzene)	-	905-588-0	01-2119539452-40	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Acute Tox. 4 (H312) Acute Tox. 4 (H332) STOT SE 3 (H335) STOT RE 2 (H373)	5 - < 10
Acetone	67-64-1	200-662-2	01-2119471330-49	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	5 - < 10
Methyl ethyl ketone	78-93-3	201-159-0	01-2119457290-43	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	5 - < 10
hydrocarbons, C9, aromats	-	918-668-5	01-2119455851-35	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) STOT SE 3 (H335) STOT SE 3 (H336) Aquatic Chronic 2 (H411) (EUH066)	5 - < 10
Cyclopentanone	120-92-3	204-435-9	01-2119495595-21	Flam. Liq. 3 (H226) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	5 - < 10
Isopropyl alcohol	67-63-0	200-661-7	01-2119457558-25	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336)	3 - < 5
2-Butoxyethanol	111-76-2	203-905-0	01-2119475108-36	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H332)	3 - < 5
Ethyl alcohol	64-17-5	200-578-6	01-2119457610-43	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)	3 - < 5
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates	-	927-241-2	01-2119471843-32	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) STOT SE 3 (H336) Aquatic Chronic 3 (H412) (EUH066)	1 - < 3
1-Butanol	71-36-3	200-751-6	01-2119484630-38	Flam. Liq. 3 (H226) Acute Tox. 4 (H302)	1 - < 3

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				Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335) STOT SE 3 (H336)	
Methanol	67-56-1	200-659-6	01-2119433307-44	Flam. Liq. 2 (H225) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370)	1 - < 3
Ethyl acetate	141-78-6	205-500-4	01-2119475103-46	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	1 - < 3
Toluene	108-88-3	203-625-9	01-2119471310-51	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Repr. 2 (H361d) STOT RE 2 (H373)	1 - < 3
Ethyl (S)-2-hydroxypropionate	687-47-8	211-694-1	01-2119516234-49	Flam. Liq. 3 (H226) Eye Dam. 1 (H318) STOT SE 3 (H335)	1 - < 3
Isopropyl acetate	108-21-4	203-561-1	01-2119537214-46	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	1 - < 3

Chemical name	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Ethyl alcohol 64-17-5	Eye Irrit. 2 :: C>=50%			
Methanol 67-56-1	STOT SE 1 :: C>=10% STOT SE 2 :: 3%<=C<10%			
Ethyl (S)-2-hydroxypropionate 687-47-8				C
Isopropyl acetate 108-21-4				C

#### Acute Toxicity Estimate:

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
n-Butyl acetate 123-86-4	10768	17060	No data available	23.4	No data available
Propylene glycol monomethyl ether acetate 108-65-6	8532	5005	No data available	No data available	No data available
Propylene glycol monomethyl ether	4016	13000	No data available	36.7	No data available

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107-98-2					
xylene (reaction product of xylene and ethylbenzene) -	3523	12126	1.5	27.1	No data available
Acetone 67-64-1	5800	15715.7	76	No data available	No data available
Methyl ethyl ketone 78-93-3	2194	5002	No data available	34	No data available
hydrocarbons, C9, aromats -	3592	3200	No data available	No data available	No data available
Cyclopentanone 120-92-3	1180	3160	No data available	No data available	No data available
Isopropyl alcohol 67-63-0	5840	13400	72.6	30	No data available
2-Butoxyethanol 111-76-2	1300	2001	1.5	11	No data available
Ethyl alcohol 64-17-5	10470	2002	No data available	51	No data available
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates -	2001	2001	No data available	No data available	No data available
1-Butanol 71-36-3	2292	3430	No data available	24.3	No data available
Methanol 67-56-1	1187	300	0.501	128.2	No data available
Ethyl acetate 141-78-6	4934	20000	No data available	4000	No data available
Toluene 108-88-3	5580	12124	28	No data available	No data available
Ethyl (S)-2-hydroxypropionate 687-47-8	2002	No data available	No data available	No data available	No data available
Isopropyl acetate 108-21-4	3000	17436	101.2	No data available	No data available

Full text of H- and EUH-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General advice:	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation:	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.

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Skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion:	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.
Self-protection of the first aider:	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

## 4.2. Most important symptoms and effects, both acute and delayed

Symptoms:	Burning sensation. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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## 4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians:	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable Extinguishing Media:	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
Large Fire:	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media:	Do not scatter spilled material with high pressure water streams.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical:	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
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### 5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters:	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all
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ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information: Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders: Use personal protection recommended in Section 8.

## 6.2. Environmental precautions

Environmental precautions: Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

## 6.3. Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up: Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

## 6.4. Reference to other sections

Reference to other sections: See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling



Advice on safe handling: Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations: Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

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## 7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

## 7.3. Specific end use(s)

Other information: No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Exposure Limits:

Chemical name	European Union	Germany	Netherlands	Spain	United Kingdom	Hungary
n-Butyl acetate 123-86-4		TWA: 62 ppm TWA: 300 mg/m <sup>3</sup>		TWA: 150 ppm TWA: 724 mg/m <sup>3</sup> STEL: 200 ppm STEL: 965 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 724 mg/m <sup>3</sup> STEL: 200 ppm STEL: 966 mg/m <sup>3</sup>	TWA: 950 mg/m <sup>3</sup> STEL: 950 mg/m <sup>3</sup>
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> *	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup>	TWA: 550 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> via dérmica*	TWA: 50 ppm TWA: 274 mg/m <sup>3</sup> STEL: 100 ppm STEL: 548 mg/m <sup>3</sup> Sk*	TWA: 275 mg/m <sup>3</sup> STEL: 550 mg/m <sup>3</sup>
Propylene glycol monomethyl ether 107-98-2	TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 568 mg/m <sup>3</sup> *	TWA: 100 ppm TWA: 370 mg/m <sup>3</sup>	TWA: 375 mg/m <sup>3</sup> STEL: 563 mg/m <sup>3</sup> H*	TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 568 mg/m <sup>3</sup> via dérmica*	TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 560 mg/m <sup>3</sup> Sk*	TWA: 375 mg/m <sup>3</sup> STEL: 568 mg/m <sup>3</sup> b*
Acetone 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup>	TWA: 1210 mg/m <sup>3</sup> STEL: 2420 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1500 ppm STEL: 3620 mg/m <sup>3</sup>	TWA: 1210 mg/m <sup>3</sup> STEL: 2420 mg/m <sup>3</sup>
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 900 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> H*	TWA: 590 mg/m <sup>3</sup> STEL: 900 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 900 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 899 mg/m <sup>3</sup> Sk*	TWA: 600 mg/m <sup>3</sup> STEL: 900 mg/m <sup>3</sup> b*
hydrocarbons, C9, aromats -		RCP: C9-14 aromates: STEL: 50 mg/m <sup>3</sup> - 2(II)				
Isopropyl alcohol 67-63-0		TWA: 200 ppm TWA: 500 mg/m <sup>3</sup>		TWA: 200 ppm TWA: 500 mg/m <sup>3</sup> STEL: 400 ppm STEL: 1000 mg/m <sup>3</sup>	TWA: 400 ppm TWA: 999 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1250 mg/m <sup>3</sup>	TWA: 500 mg/m <sup>3</sup> STEL: 2000 mg/m <sup>3</sup> b*
2-Butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL: 50 ppm STEL: 246 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 49 mg/m <sup>3</sup> H*	TWA: 100 mg/m <sup>3</sup> STEL: 246 mg/m <sup>3</sup> H*	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL: 50 ppm STEL: 245 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 123 mg/m <sup>3</sup> STEL: 50 ppm STEL: 246 mg/m <sup>3</sup>	TWA: 98 mg/m <sup>3</sup> STEL: 246 mg/m <sup>3</sup> b*



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Chemical name	European Union	Germany	Netherlands	Spain	United Kingdom	Hungary
	*			vía dérmica*	Sk*	
Ethyl alcohol 64-17-5		TWA: 200 ppm TWA: 380 mg/m <sup>3</sup>	TWA: 260 mg/m <sup>3</sup> STEL: 1900 mg/m <sup>3</sup> H*	STEL: 1000 ppm STEL: 1910 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup> STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> STEL: 7600 mg/m <sup>3</sup>
1-Butanol 71-36-3		TWA: 100 ppm TWA: 310 mg/m <sup>3</sup>		TWA: 20 ppm TWA: 61 mg/m <sup>3</sup> STEL: 50 ppm STEL: 154 mg/m <sup>3</sup>	STEL: 50 ppm STEL: 154 mg/m <sup>3</sup> Sk*	TWA: 45 mg/m <sup>3</sup> STEL: 90 mg/m <sup>3</sup> b*
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> *	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup> H*	TWA: 133 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> vía dérmica*	TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> Sk*	TWA: 260 mg/m <sup>3</sup> b*
Ethyl acetate 141-78-6		TWA: 200 ppm TWA: 730 mg/m <sup>3</sup>	TWA: 734 mg/m <sup>3</sup> STEL: 1468 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 734 mg/m <sup>3</sup> STEL: 400 ppm STEL: 1468 mg/m <sup>3</sup>	TWA: 734 mg/m <sup>3</sup> TWA: 200 ppm STEL: 1468 mg/m <sup>3</sup> STEL: 400 ppm	TWA: 734 mg/m <sup>3</sup> STEL: 1468 mg/m <sup>3</sup>
Toluene 108-88-3	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> *	TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> H*	TWA: 150 mg/m <sup>3</sup> STEL: 384 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> vía dérmica*	TWA: 50 ppm TWA: 191 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 190 mg/m <sup>3</sup> STEL: 380 mg/m <sup>3</sup> b*
Isopropyl acetate 108-21-4				TWA: 100 ppm TWA: 425 mg/m <sup>3</sup> STEL: 200 ppm STEL: 850 mg/m <sup>3</sup>	STEL: 200 ppm STEL: 849 mg/m <sup>3</sup>	TWA: 420 mg/m <sup>3</sup>

Chemical name	France	Italy	Portugal	Finland	Denmark	Czech Republic
n-Butyl acetate 123-86-4	TWA: 150 ppm TWA: 710 mg/m <sup>3</sup> STEL: 200 ppm STEL: 940 mg/m <sup>3</sup>		TWA: 150 ppm STEL: 200 ppm	TWA: 150 ppm TWA: 720 mg/m <sup>3</sup> STEL: 200 ppm STEL: 960 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 710 mg/m <sup>3</sup>	TWA: 950 mg/m <sup>3</sup> Ceiling: 1200 mg/m <sup>3</sup>
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> *	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> pelle*	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> P*	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> iho*	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> H*	TWA: 270 mg/m <sup>3</sup> Ceiling: 550 mg/m <sup>3</sup> D*
Propylene glycol monomethyl ether 107-98-2	TWA: 50 ppm TWA: 188 mg/m <sup>3</sup> STEL: 100 ppm STEL: 375 mg/m <sup>3</sup> *	TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 568 mg/m <sup>3</sup> pelle*	TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 568 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 370 mg/m <sup>3</sup> STEL: 150 ppm STEL: 560 mg/m <sup>3</sup> iho*	TWA: 50 ppm TWA: 185 mg/m <sup>3</sup> H*	TWA: 270 mg/m <sup>3</sup> Ceiling: 550 mg/m <sup>3</sup> D*
Acetone 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2420 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 750 ppm	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL: 630 ppm STEL: 1500 mg/m <sup>3</sup>	TWA: 250 ppm TWA: 600 mg/m <sup>3</sup>	TWA: 800 mg/m <sup>3</sup> Ceiling: 1500 mg/m <sup>3</sup>
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 900 mg/m <sup>3</sup> *	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 900 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 900 mg/m <sup>3</sup>	STEL: 100 ppm STEL: 300 mg/m <sup>3</sup> iho*	TWA: 50 ppm TWA: 145 mg/m <sup>3</sup> H*	TWA: 600 mg/m <sup>3</sup> Ceiling: 900 mg/m <sup>3</sup>
Cyclopentanone 120-92-3					TWA: 25 ppm TWA: 90 mg/m <sup>3</sup>	
Isopropyl alcohol 67-63-0	STEL: 400 ppm STEL: 980 mg/m <sup>3</sup>		TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm TWA: 500 mg/m <sup>3</sup> STEL: 250 ppm	TWA: 200 ppm TWA: 490 mg/m <sup>3</sup>	TWA: 500 mg/m <sup>3</sup> Ceiling: 1000 mg/m <sup>3</sup>

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date: 23-Aug-2021

Kluthe Lösing 100 - 061010330000

Revision Number: 1

Chemical name	France	Italy	Portugal	Finland	Denmark	Czech Republic
2-Butoxyethanol 111-76-2	TWA: 10 ppm TWA: 49 mg/m <sup>3</sup> STEL: 50 ppm STEL: 246 mg/m <sup>3</sup> *	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL: 50 ppm STEL: 246 mg/m <sup>3</sup> pelle*	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL: 50 ppm STEL: 246 mg/m <sup>3</sup> P*	STEL: 620 mg/m <sup>3</sup> TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL: 50 ppm STEL: 250 mg/m <sup>3</sup> iho*	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> H*	D* TWA: 100 mg/m <sup>3</sup> Ceiling: 200 mg/m <sup>3</sup> D*
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 5000 ppm STEL: 9500 mg/m <sup>3</sup>		TWA: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 1300 ppm STEL: 2500 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	TWA: 1000 mg/m <sup>3</sup> Ceiling: 3000 mg/m <sup>3</sup>
1-Butanol 71-36-3	STEL: 50 ppm STEL: 150 mg/m <sup>3</sup>		TWA: 20 ppm	TWA: 50 ppm TWA: 150 mg/m <sup>3</sup> STEL: 75 ppm STEL: 230 mg/m <sup>3</sup> iho*	Ceiling: 50 ppm Ceiling: 150 mg/m <sup>3</sup> H*	TWA: 300 mg/m <sup>3</sup> Ceiling: 600 mg/m <sup>3</sup> D*
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 1300 mg/m <sup>3</sup> *	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> pelle*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm P*	TWA: 200 ppm TWA: 270 mg/m <sup>3</sup> STEL: 250 ppm STEL: 330 mg/m <sup>3</sup> iho*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> H*	TWA: 250 mg/m <sup>3</sup> Ceiling: 1000 mg/m <sup>3</sup> D*
Ethyl acetate 141-78-6	TWA: 400 ppm TWA: 1400 mg/m <sup>3</sup>		TWA: 400 ppm	TWA: 200 ppm TWA: 730 mg/m <sup>3</sup> STEL: 400 ppm STEL: 1470 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 540 mg/m <sup>3</sup>	TWA: 700 mg/m <sup>3</sup> Ceiling: 900 mg/m <sup>3</sup>
Toluene 108-88-3	TWA: 20 ppm TWA: 76.8 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> *	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> pelle*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> P*	TWA: 25 ppm TWA: 81 mg/m <sup>3</sup> STEL: 100 ppm STEL: 380 mg/m <sup>3</sup> iho*	TWA: 25 ppm TWA: 94 mg/m <sup>3</sup> H*	TWA: 200 mg/m <sup>3</sup> Ceiling: 500 mg/m <sup>3</sup> D*
Ethyl (S)-2-hydroxypropionate 687-47-8				TWA: 5 ppm TWA: 25 mg/m <sup>3</sup> STEL: 10 ppm STEL: 49 mg/m <sup>3</sup>		
Isopropyl acetate 108-21-4	TWA: 250 ppm TWA: 950 mg/m <sup>3</sup> STEL: 300 ppm STEL: 1140 mg/m <sup>3</sup>		TWA: 100 ppm STEL: 200 ppm	TWA: 100 ppm TWA: 420 mg/m <sup>3</sup> STEL: 200 ppm STEL: 850 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 625 mg/m <sup>3</sup>	TWA: 800 mg/m <sup>3</sup> Ceiling: 1000 mg/m <sup>3</sup>

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Russia
n-Butyl acetate 123-86-4	TWA: 100 ppm TWA: 480 mg/m <sup>3</sup> STEL 100 ppm STEL 480 mg/m <sup>3</sup> Ceiling 100 ppm Ceiling 480 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 480 mg/m <sup>3</sup> STEL: 200 ppm STEL: 960 mg/m <sup>3</sup>	STEL: 720 mg/m <sup>3</sup> TWA: 240 mg/m <sup>3</sup>	TWA: 75 ppm TWA: 355 mg/m <sup>3</sup> STEL: 112.5 ppm STEL: 443.75 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 710 mg/m <sup>3</sup> STEL: 200 ppm STEL: 950 mg/m <sup>3</sup>	TWA: 50 mg/m <sup>3</sup> STEL: 200 mg/m <sup>3</sup>
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL 100 ppm STEL 550 mg/m <sup>3</sup> H*	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 50 ppm STEL: 275 mg/m <sup>3</sup>	STEL: 520 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 75 ppm STEL: 337.5 mg/m <sup>3</sup> H*	TWA: 50 ppm TWA: 275 mg/m <sup>3</sup> STEL: 100 ppm STEL: 550 mg/m <sup>3</sup> Sk*	MAC: 10 mg/m <sup>3</sup>
Propylene glycol monomethyl ether 107-98-2	TWA: 50 ppm TWA: 187 mg/m <sup>3</sup> STEL 50 ppm STEL 187 mg/m <sup>3</sup> Ceiling 50 ppm Ceiling 187 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 360 mg/m <sup>3</sup> STEL: 200 ppm STEL: 720 mg/m <sup>3</sup>	STEL: 360 mg/m <sup>3</sup> TWA: 180 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 180 mg/m <sup>3</sup> STEL: 75 ppm STEL: 225 mg/m <sup>3</sup> H*	TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 568 mg/m <sup>3</sup>	

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date: 23-Aug-2021

Kluthe Lösing 100 - 061010330000

Revision Number: 1

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Russia
	H*					
Acetone 67-64-1	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL 2000 ppm STEL 4800 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2400 mg/m <sup>3</sup>	STEL: 1800 mg/m <sup>3</sup> TWA: 600 mg/m <sup>3</sup>	TWA: 125 ppm TWA: 295 mg/m <sup>3</sup> STEL: 156.25 ppm STEL: 368.75 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1500 ppm STEL: 3630 mg/m <sup>3</sup>	TWA: 200 mg/m <sup>3</sup> STEL: 800 mg/m <sup>3</sup>
Methyl ethyl ketone 78-93-3	TWA: 100 ppm TWA: 295 mg/m <sup>3</sup> STEL 200 ppm STEL 590 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 590 mg/m <sup>3</sup> STEL: 200 ppm STEL: 590 mg/m <sup>3</sup> H*	STEL: 900 mg/m <sup>3</sup> TWA: 450 mg/m <sup>3</sup>	TWA: 75 ppm TWA: 220 mg/m <sup>3</sup> STEL: 112.5 ppm STEL: 275 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 900 mg/m <sup>3</sup> Sk*	TWA: 200 mg/m <sup>3</sup> STEL: 400 mg/m <sup>3</sup>
Cyclopentanone 120-92-3	TWA: 25 ppm TWA: 90 mg/m <sup>3</sup> STEL 50 ppm STEL 180 mg/m <sup>3</sup>					
Isopropyl alcohol 67-63-0	TWA: 200 ppm TWA: 500 mg/m <sup>3</sup> STEL 800 ppm STEL 2000 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 500 mg/m <sup>3</sup> STEL: 400 ppm STEL: 1000 mg/m <sup>3</sup>	STEL: 1200 mg/m <sup>3</sup> TWA: 900 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 245 mg/m <sup>3</sup> STEL: 125 ppm STEL: 306.25 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 400 ppm Sk*	TWA: 10 mg/m <sup>3</sup> STEL: 50 mg/m <sup>3</sup>
2-Butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL 40 ppm STEL 200 mg/m <sup>3</sup> H*	TWA: 10 ppm TWA: 49 mg/m <sup>3</sup> STEL: 20 ppm STEL: 98 mg/m <sup>3</sup> H*	STEL: 200 mg/m <sup>3</sup> TWA: 98 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> STEL: 15 ppm STEL: 75 mg/m <sup>3</sup> H*	TWA: 20 ppm TWA: 98 mg/m <sup>3</sup> STEL: 50 ppm STEL: 246 mg/m <sup>3</sup> Sk*	MAC: 5 mg/m <sup>3</sup>
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL 2000 ppm STEL 3800 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 960 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup> STEL: 625 ppm STEL: 1187.5 mg/m <sup>3</sup>	STEL: 1000 ppm	TWA: 1000 mg/m <sup>3</sup> STEL: 2000 mg/m <sup>3</sup>
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates -			STEL: 900 mg/m <sup>3</sup> TWA: 300 mg/m <sup>3</sup>			
1-Butanol 71-36-3	TWA: 50 ppm TWA: 150 mg/m <sup>3</sup> STEL 200 ppm STEL 600 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 310 mg/m <sup>3</sup> STEL: 100 ppm STEL: 310 mg/m <sup>3</sup>	STEL: 150 mg/m <sup>3</sup> TWA: 50 mg/m <sup>3</sup>	Ceiling: 25 ppm Ceiling: 75 mg/m <sup>3</sup> H*	TWA: 20 ppm STEL: 60 ppm Sk*	TWA: 10 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup>
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL 800 ppm STEL 1040 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 800 ppm STEL: 1040 mg/m <sup>3</sup> H*	STEL: 300 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup> STEL: 125 ppm STEL: 162.5 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 600 ppm STEL: 780 mg/m <sup>3</sup> Sk*	TWA: 5 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup> Skin
Ethyl acetate 141-78-6	TWA: 200 ppm TWA: 734 mg/m <sup>3</sup> STEL 400 ppm STEL 1468 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 730 mg/m <sup>3</sup> STEL: 400 ppm STEL: 1460 mg/m <sup>3</sup>	STEL: 1468 mg/m <sup>3</sup> TWA: 734 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 734 mg/m <sup>3</sup> STEL: 250 ppm STEL: 917.5 mg/m <sup>3</sup>	TWA: 734 mg/m <sup>3</sup> TWA: 200 ppm STEL: 1468 mg/m <sup>3</sup> STEL: 400 ppm	TWA: 50 mg/m <sup>3</sup> STEL: 200 mg/m <sup>3</sup>
Toluene 108-88-3	TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> STEL 100 ppm STEL 380 mg/m <sup>3</sup> H*	TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> STEL: 200 ppm STEL: 760 mg/m <sup>3</sup> H*	STEL: 200 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 94 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 141 mg/m <sup>3</sup> H*	TWA: 192 mg/m <sup>3</sup> TWA: 50 ppm STEL: 384 mg/m <sup>3</sup> STEL: 100 ppm Sk*	TWA: 50 mg/m <sup>3</sup> STEL: 150 mg/m <sup>3</sup>
Isopropyl acetate 108-21-4	TWA: 100 ppm TWA: 420 mg/m <sup>3</sup> STEL 100 ppm STEL 420 mg/m <sup>3</sup> Ceiling: 100 ppm Ceiling: 420 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 420 mg/m <sup>3</sup> STEL: 200 ppm STEL: 840 mg/m <sup>3</sup>	STEL: 1000 mg/m <sup>3</sup> TWA: 600 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 420 mg/m <sup>3</sup> STEL: 150 ppm STEL: 525 mg/m <sup>3</sup>	TWA: 100 ppm STEL: 150 ppm	TWA: 50 mg/m <sup>3</sup> MAC: 200 mg/m <sup>3</sup>

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date: 23-Aug-2021

Kluthe Lösin 100 - 061010330000

Revision Number: 1

Biological occupational exposure limits:

Chemical name	European Union	Germany	Netherlands	Spain	United Kingdom	Hungary
Propylene glycol monomethyl ether 107-98-2	-	15 mg/L - urine (1-Methoxypropan-2-ol) - end of shift			-	
Acetone 67-64-1	-	80 mg/L - urine (Acetone) - end of shift		50 mg/L - urine (Acetone) - end of shift	-	
Methyl ethyl ketone 78-93-3	-	2 mg/L - urine (2-Butanone) - end of shift		2 mg/L - urine (Methyl ethyl ketone) - end of shift	70 µmol/L - urine (Butan-2-one) - post shift	
Isopropyl alcohol 67-63-0	-	25 mg/L - whole blood (Acetone) - end of shift 25 mg/L - urine (Acetone) - end of shift		40 mg/L - urine (Acetone) - end of workweek	-	
2-Butoxyethanol 111-76-2	-	150 mg/g Creatinine - urine (Butoxyacetic acid (after hydrolysis)) - for long-term exposures: at the end of the shift after several shifts 150 mg/g Creatinine - urine (Butoxyacetic acid (after hydrolysis)) - end of shift		200 mg/g Creatinine - urine (Butoxyacetic acid (with hydrolysis)) - end of shift	240 mmol/mol creatinine - urine (Butoxyacetic acid) - post shift	
1-Butanol 71-36-3	-	10 mg/g Creatinine - urine (1-Butanol (after hydrolysis)) - end of shift 2 mg/g Creatinine - urine (1-Butanol (after hydrolysis)) - before beginning of next shift			-	
Methanol 67-56-1	-	30 mg/g - urine (methanol) - end of shift		15 mg/L - urine (Methanol) - end of shift	-	
Toluene 108-88-3	-	600 µg/L - whole blood (Toluene) - immediately after exposure 75 µg/L - urine (Toluene) - end of shift 1.5 mg/L - urine (o-Cresol (after hydrolysis)) - for long-term exposures: at the end of the shift after several shifts		0.6 mg/L - urine (o-Cresol) - end of shift 0.05 mg/L - blood (Toluene) - start of last shift of workweek 0.08 mg/L - urine (Toluene) - end of shift	-	

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Revision date: 23-Aug-2021

Kluthe Lösin 100 - 061010330000

Revision Number: 1

Chemical name	European Union	Germany	Netherlands	Spain	United Kingdom	Hungary
		1.5 mg/L - urine (o-Cresol (after hydrolysis)) - end of shift				

Chemical name	France	Italy	Portugal	Finland	Denmark	Czech Republic
Acetone 67-64-1	100 mg/L - urine (Acetone) - end of shift	-	-			
Methyl ethyl ketone 78-93-3	2 mg/L - urine (Methylethylketone) - end of shift	-	-			
Methanol 67-56-1	15 mg/L - urine (Methanol) - end of shift	-	-			
Toluene 108-88-3	1 mg/L - venous blood (Toluene) - end of shift 2500 mg/g creatinine - urine (Hippuric acid) - end of shift	-	-	500 nmol/L - blood (Toluene) - in the morning after a working day		

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Russia
Propylene glycol monomethyl ether 107-98-2	-	20 mg/L - urine (1-Methoxypropanol-2) - end of shift	-	-	-	
Acetone 67-64-1	-	80 mg/L - urine (Acetone) - end of shift	-	-	50 mg/L - urine (Acetone) - end of shift	
Methyl ethyl ketone 78-93-3	-	2 mg/L - urine (2-Butanone) - end of shift	-	-	70 µmol/L - urine (Butan-2-one) - post shift	
Isopropyl alcohol 67-63-0	-	25 mg/L - urine (Acetone) - end of shift 25 mg/L - whole blood (Acetone) - end of shift	-	-	40 mg/L - urine (Acetone) - end of shift at end of workweek	
2-Butoxyethanol 111-76-2	-	150 mg/g creatinine - urine (2-Butoxyacetic acid (after hydrolysis)) - end of shift, and after several shifts (for long-term exposures)	-	-	200 mg/g Creatinine - urine () - end of shift	
1-Butanol 71-36-3	-	10 mg/g creatinine - urine (n-Butanol) - end of shift 2 mg/g creatinine - urine (n-Butanol) - at least 3 months exposure	-	-	-	
Methanol 67-56-1	-	30 mg/L - urine (Methanol) - end of shift, and after several shifts (for long-term	-	-	15 mg/L - urine (Methanol) - end of shift	

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Revision Number: 1

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Russia
Toluene 108-88-3	10 g/dL Hemoglobin - blood () - by the first screening and once yearly 12 g/dL Hemoglobin - blood () - by the first screening and once yearly 3.2 million/ $\mu$ L Erythrocytes - blood () - by the first screening and once yearly 3.8 million/ $\mu$ L Erythrocytes - blood () - by the first screening and once yearly 4000 Leukocytes/ $\mu$ L - blood () - by the first screening and once yearly 13000 Leukocytes/ $\mu$ L - blood () - by the first screening and once yearly 130000 Thrombocytes/ $\mu$ L - blood () - by the first screening and once yearly 150000 Thrombocytes/ $\mu$ L - blood () - by the first screening and once yearly 0.8 mg/L - urine (o-Cresol) - after end of work day, at the end of a work week/end of the shift	600 $\mu$ g/L - whole blood (Toluol) - end of shift 2 g/g creatinine - urine (Hippuric acid) - end of shift, and after several shifts (for long-term exposures) 0.5 mg/L - urine (o-Cresol) - end of shift, and after several shifts (for long-term exposures)	-	-	0.02 mg/L - blood (Toluene) - prior to last shift of workweek 0.03 mg/L - urine (Toluene) - end of shift 0.3 mg/g Creatinine - urine (o-Cresol) - end of shift	

Derived No Effect Level (DNEL):

component information:

Worker - inhalative:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
n-Butyl acetate	300 mg/m <sup>3</sup>			600 mg/m <sup>3</sup>
Propylene glycol monomethyl ether acetate	275 mg/m <sup>3</sup>			550 mg/m <sup>3</sup>
Propylene glycol monomethyl	369 mg/m <sup>3</sup>	553.5 mg/m <sup>3</sup>		553.5 mg/m <sup>3</sup>

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Revision date: 23-Aug-2021

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Revision Number: 1

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
ether				
xylene (reaction product of xylene and ethylbenzene)	221 mg/m <sup>3</sup>	442 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>	442 mg/m <sup>3</sup>
Acetone	1210 mg/m <sup>3</sup>			2420 mg/m <sup>3</sup>
Methyl ethyl ketone	600 mg/m <sup>3</sup>			
hydrocarbons, C9, aromats	150 mg/m <sup>3</sup>			
Cyclopentanone	61 mg/m <sup>3</sup>	211 mg/m <sup>3</sup>	150 mg/m <sup>3</sup>	
Isopropyl alcohol	500 mg/m <sup>3</sup>			
2-Butoxyethanol	98 mg/m <sup>3</sup>	1091 mg/m <sup>3</sup>		246 mg/m <sup>3</sup>
Ethyl alcohol	950 mg/m <sup>3</sup>			1900 mg/m <sup>3</sup>
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates	871 mg/m <sup>3</sup>			
1-Butanol	310 mg/m <sup>3</sup>		310 mg/m <sup>3</sup>	
Methanol	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>
Ethyl acetate	734 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>
Toluene	192 mg/m <sup>3</sup>	384 mg/m <sup>3</sup>	192 mg/m <sup>3</sup>	384 mg/m <sup>3</sup>
Isopropyl acetate	275 mg/m <sup>3</sup>	558 mg/m <sup>3</sup>	227 mg/m <sup>3</sup>	

Worker - dermal:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
n-Butyl acetate	11 mg/kg			
Propylene glycol monomethyl ether acetate	796 mg/kg bw/day			
Propylene glycol monomethyl ether	183 mg/kg bw/day			
xylene (reaction product of xylene and ethylbenzene)	212 mg/kg bw/day			
Acetone	186 mg/kg bw/day			
Methyl ethyl ketone	1161 mg/kg bw/day			
hydrocarbons, C9, aromats	25 mg/kg bw/day			
Cyclopentanone	7 mg/kg bw/day	8 mg/kg bw/day		
Isopropyl alcohol	888 mg/kg bw/day			
2-Butoxyethanol	125 mg/kg bw/day	89 mg/kg bw/day		
Ethyl alcohol	34 mg/kg bw/day			
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates	77 mg/kg bw/day			
Methanol	40 mg/kg bw/day	40 mg/kg bw/day		
Ethyl acetate	63 mg/kg bw/day			
Toluene	384 mg/kg bw/day			
Isopropyl acetate	27 mg/kg bw/day			

Consumer - inhalative:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
n-Butyl acetate	35.7 mg/m <sup>3</sup>			300 mg/m <sup>3</sup>
Propylene glycol monomethyl ether acetate	33 mg/m <sup>3</sup>		33 mg/m <sup>3</sup>	
Propylene glycol monomethyl	43.9 mg/m <sup>3</sup>			

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Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
ether				
xylene (reaction product of xylene and ethylbenzene)	65.3 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	65.3 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>
Acetone	200 mg/m <sup>3</sup>			
Methyl ethyl ketone	106 mg/m <sup>3</sup>			
hydrocarbons, C9, aromats	32 mg/m <sup>3</sup>			
Cyclopentanone	15 mg/m <sup>3</sup>	105 mg/m <sup>3</sup>	75 mg/m <sup>3</sup>	
Isopropyl alcohol	89 mg/m <sup>3</sup>			
2-Butoxyethanol	59 mg/m <sup>3</sup>	426 mg/m <sup>3</sup>		147 mg/m <sup>3</sup>
Ethyl alcohol	114 mg/m <sup>3</sup>			950 mg/m <sup>3</sup>
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates	185 mg/m <sup>3</sup>			
1-Butanol	55.357 mg/m <sup>3</sup>		155 mg/m <sup>3</sup>	
Methanol	50 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>
Ethyl acetate	367 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>
Toluene	56.5 mg/m <sup>3</sup>	226 mg/m <sup>3</sup>	56.5 mg/m <sup>3</sup>	226 mg/m <sup>3</sup>
Isopropyl acetate	168 mg/m <sup>3</sup>	335 mg/m <sup>3</sup>	136 mg/m <sup>3</sup>	

Consumer - dermal:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
n-Butyl acetate	6 mg/kg bw/day			
Propylene glycol monomethyl ether acetate	320 mg/kg bw/day			
Propylene glycol monomethyl ether	78 mg/kg bw/day			
xylene (reaction product of xylene and ethylbenzene)	125 mg/kg bw/day			
Acetone	62 mg/kg bw/day			
Methyl ethyl ketone	412 mg/kg bw/day			
hydrocarbons, C9, aromats	11 mg/kg bw/day			
Cyclopentanone	3.5 mg/kg bw/day	4 mg/kg bw/day		
Isopropyl alcohol	319 mg/kg bw/day			
2-Butoxyethanol	75 mg/kg bw/day	89 mg/kg bw/day		
Ethyl alcohol	206 mg/kg bw/day			
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates	46 mg/kg bw/day			
1-Butanol	3.125 mg/kg bw/day			
Methanol	8 mg/kg bw/day	8 mg/kg bw/day		
Ethyl acetate	37 mg/kg bw/day			
Toluene	226 mg/kg bw/day			
Isopropyl acetate	16 mg/kg bw/day			

consumer - oral:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
n-Butyl acetate	2 mg/kg bw/day			
Propylene glycol monomethyl ether acetate	36 mg/kg bw/day			



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Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Propylene glycol monomethyl ether	33 mg/kg bw/day			
xylene (reaction product of xylene and ethylbenzene)	12.5 mg/kg bw/day			
Acetone	62 mg/kg bw/day			
Methyl ethyl ketone	31 mg/kg bw/day			
hydrocarbons, C9, aromats	11 mg/kg bw/day			
Cyclopentanone	3.5 mg/kg bw/day	5 mg/kg bw/day		
Isopropyl alcohol	26 mg/kg bw/day			
2-Butoxyethanol	6.3 mg/kg bw/day	26.7 mg/kg bw/day		
Ethyl alcohol	87 mg/kg bw/day			
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates	46 mg/kg bw/day			
1-Butanol	1.5625 mg/kg bw/day			
Methanol	8 mg/kg bw/day	8 mg/kg bw/day		
Ethyl acetate	4.5 mg/kg bw/day			
Toluene	8.13 mg/kg bw/day			
Isopropyl acetate	16 mg/kg bw/day			

Predicted No Effect Concentration (PNEC):

component information:

Chemical name	n-Butyl acetate
Freshwater	0.18 mg/L
Marine water	0.018 mg/L
Intermittent release	0.36 mg/L
Impact on Sewage Treatment	35.6 mg/L
Freshwater sediment	0.981 mg/kg
Marine sediment	0.098 mg/kg
Soil	0.0903 mg/kg

Chemical name	Propylene glycol monomethyl ether acetate
Freshwater	0.635 mg/L
Marine water	0.0635 mg/L
Intermittent release	6.35 mg/L
Impact on Sewage Treatment	100 mg/L
Freshwater sediment	3.29 mg/kg
Marine sediment	0.329 mg/kg
Soil	0.29 mg/kg

Chemical name	Propylene glycol monomethyl ether
Freshwater	10 mg/L
Marine water	1 mg/L
Intermittent release	100 mg/L
Impact on Sewage Treatment	100 mg/L
Freshwater sediment	52.3 mg/kg dry weight
Marine sediment	5.2 mg/kg dry weight
Soil	4.59 mg/kg

Chemical name	xylene (reaction product of xylene and ethylbenzene)

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Freshwater	0.327 mg/L
Marine water	0.327 mg/L
Intermittent release	0.327 mg/L
Impact on Sewage Treatment	6.58 mg/L
Freshwater sediment	12.46 mg/kg
Marine sediment	12.46 mg/kg
Soil	2.31 mg/kg

Chemical name	Acetone
Freshwater	10.6 mg/L
Marine water	1.06 mg/L
Intermittent release	21 mg/L
Impact on Sewage Treatment	100 mg/L
Freshwater sediment	30.4 mg/kg dry weight
Marine sediment	3.04 mg/kg dry weight
Soil	29.5 mg/kg dry weight

Chemical name	Methyl ethyl ketone
Freshwater	55.8 mg/L
Marine water	55.8 mg/L
Intermittent release	55.8 mg/L
Impact on Sewage Treatment	709 mg/L
Freshwater sediment	284.7 mg/kg
Marine sediment	284.7 mg/kg
Soil	22.5 mg/kg
Food chain	1000 mg/kg

Chemical name	Isopropyl alcohol
Freshwater	140.9 mg/L
Marine water	140.9 mg/L
Intermittent release	140.9 mg/L
Impact on Sewage Treatment	2251 mg/L
Freshwater sediment	252 mg/kg
Marine sediment	252 mg/L
Soil	28 mg/kg
Food chain	160 mg/kg

Chemical name	2-Butoxyethanol
Freshwater	8.8 mg/L
Marine water	0.88 mg/L
Intermittent release	0.0246 mg/L
Impact on Sewage Treatment	0.463 mg/L
Freshwater sediment	34.6 mg/kg dry weight
Marine sediment	3.46 mg/kg dry weight
Soil	2.33 mg/kg dry weight
Food chain	20 mg/kg

Chemical name	Ethyl alcohol
Freshwater	0.96 mg/L
Marine water	0.79 mg/L
Intermittent release	2.75 mg/L
Impact on Sewage Treatment	580 mg/L
Freshwater sediment	3.6 mg/kg dry weight

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Marine sediment	2.9 mg/kg dry weight
Soil	0.63 mg/kg dry weight
Food chain	720 mg/kg

Chemical name	1-Butanol
Freshwater	0.082 mg/L
Marine water	0.0082 mg/L
Intermittent release	2.25 mg/L
Impact on Sewage Treatment	2476 mg/L
Freshwater sediment	0.178 mg/kg
Marine sediment	0.0178 mg/kg
Soil	0.015 mg/kg

Chemical name	Methanol
Freshwater	154 mg/L
Marine water	15.4 mg/L
Intermittent release	1540 mg/L
Impact on Sewage Treatment	100 mg/L
Freshwater sediment	570.4 mg/kg dry weight
Soil	23.5 mg/kg dry weight

Chemical name	Ethyl acetate
Freshwater	0.24 mg/L
Marine water	0.024 mg/L
Intermittent release	1.65 mg/L
Impact on Sewage Treatment	650 mg/L
Freshwater sediment	1.15 mg/kg
Marine sediment	0.115 mg/kg
Soil	0.148 mg/kg
Food chain	200 mg/kg

Chemical name	Toluene
Freshwater	0.68 mg/L
Marine water	0.68 mg/L
Intermittent release	0.68 mg/L
Impact on Sewage Treatment	13.61 mg/L
Freshwater sediment	16.39 mg/kg
Marine sediment	16.39 mg/kg
Soil	2.89 mg/kg

Chemical name	Ethyl (S)-2-hydroxypropionate
Freshwater	0.32 mg/L
Marine water	0.032 mg/L
Intermittent release	3.2 mg/L
Freshwater sediment	1.66 mg/kg
Marine sediment	0.166 mg/kg
Soil	0.145 mg/kg

Chemical name	Isopropyl acetate
Freshwater	0.22 mg/L
Marine water	0.022 mg/L
Intermittent release	1.1 mg/L
Impact on Sewage Treatment	190 mg/L

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Freshwater sediment	1.25 mg/kg
Marine sediment	0.125 mg/kg
Soil	0.35 mg/kg

## 8.2. Exposure controls

Engineering controls: Showers, eyewash stations, and ventilation systems.

Personal protective equipment:



Eye/face protection: Tight sealing safety goggles.

Hand protection: Wear suitable gloves. Impervious gloves.

PPE - Glove material	Glove thickness	Break through time
Barrier (PE/PA/PE)	0.07 mm	>=480 min.

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Recommended Filter Type: Filtering device (full mask or mouthpiec AP-2

Environmental exposure controls: No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance: Liquid

Color: colorless

Odor: characteristic

	Conditions	Method	Remarks
<b>Melting point / melting range</b>			Not established
<b>Boiling point / boiling range</b>	55 - 185 °C		
<b>Flammability</b>			Not established
<b>Decomposition temperature</b>			not relevant
<b>Flash point</b>	~ -10 °C		
<b>Autoignition temperature</b>	> 200 °C		

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Lower explosive limit	1	Vol%	
Upper explosion limit	36.5	Vol%	
Vapor pressure	> 1100	hPa	50 °C
Density	~ 0.847	g/cm <sup>3</sup>	20 °C
Water solubility			partially miscible
pH			Not applicable
pH (as aqueous solution)			Not established
Partition coefficient			Not established
Kinematic viscosity	< 20.5	mm <sup>2</sup> /s	40 °C
Odor threshold			Not established
Relative density			Not established
Evaporation rate			Not established
Relative vapor density	no data available		
Particle Size	no data available		
Particle Size Distribution	no data available		

## 9.2. Other information

Bulk density:	no data available
Softening point	No information available
Molecular weight	No information available

### 9.2.1. Information with regard to physical hazard classes:

Explosive properties	No data available
Oxidizing properties	No data available

### 9.2.2. Other safety characteristics: No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity: No information available.

### 10.2. Chemical stability

Stability: Stable under normal conditions.

Explosion data:

Sensitivity to mechanical impact:	None.
Sensitivity to static discharge:	Yes.

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## 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: None under normal processing.

## 10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

## 10.5. Incompatible materials

Incompatible materials: Strong acids. Strong bases. Strong oxidizing agents.

## 10.6. Hazardous decomposition products

Hazardous decomposition products: None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Information on likely routes of exposure:

Product Information:

Inhalation:	Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact:	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
Skin contact:	Specific test data for the substance or mixture is not available. Repeated exposure may cause skin dryness or cracking. Causes skin irritation. (based on components).
Ingestion:	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics:

Symptoms:	Redness. Burning. May cause blindness. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Numerical measures of toxicity:

Acute toxicity: The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2,417.90 mg/kg
ATEmix (dermal)	3,943.40 mg/kg
ATEmix (inhalation-dust/mist)	7.36 mg/l

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ATEmix (inhalation-vapor) 30.20 mg/l

Component Information:

Chemical name	Parameter	Species	effektive Dosis	Method
n-Butyl acetate 123-86-4	Oral LD50	Rat	10768 mg/kg	OECD 423
Propylene glycol monomethyl ether acetate 108-65-6	Oral LD50	Rat	> 2000 mg/kg	OECD 401
Propylene glycol monomethyl ether 107-98-2	Oral LD50	Rat	4016 mg/kg	
xylene (reaction product of xylene and ethylbenzene) -	Oral LD50	Rat	3523 mg/kg	EG92/69/EWG B.1
Acetone 67-64-1	Oral LD50	Rat	5800 mg/kg	OECD 401
Methyl ethyl ketone 78-93-3	Oral LD50	Rat	> 2193 mg/kg	OECD 423
hydrocarbons, C9, aromats -	Oral LD50	Rat	3592 mg/kg	OECD 401
Cyclopentanone 120-92-3	Oral LD50	Rat	1180 mg/kg	
Isopropyl alcohol 67-63-0	Oral LD50	Rat	5480 mg/kg	OECD 401
2-Butoxyethanol 111-76-2	Oral LD50	Rat	1300 mg/kg	OECD 401
Ethyl alcohol 64-17-5	Oral LD50	Rat	10470 mg/kg	OECD 401
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates -	Oral LD50	Rat	> 5000 mg/kg	OECD 401
1-Butanol 71-36-3	Oral LD50	Rat	2292 mg/kg	OECD 401
Methanol 67-56-1	Oral LD50	Rat	1187 - 2769 mg/kg	
Ethyl acetate 141-78-6	Oral LD50	Rabbit	4934 mg/kg	OECD 401
Toluene 108-88-3	Oral LD50	Rat	5580 mg/kg	OECD 401
Ethyl (S)-2-hydroxypropionate 687-47-8	Oral LD50	Rat	> 2000 mg/kg	OECD 401
Isopropyl acetate 108-21-4	Oral LD50	Rat	3000 mg/kg	

Chemical name	Parameters	Species	Effective dose	Method
n-Butyl acetate 123-86-4	Dermal LD50	Rabbit	> 5000 mg/kg	OECD 402
Propylene glycol monomethyl ether acetate 108-65-6	Dermal LD50	Rabbit	> 5000 mg/kg	OECD 402
Propylene glycol monomethyl ether 107-98-2	Dermal LD50	Rabbit	> 2000 mg/kg	
xylene (reaction product of xylene	Dermal LD50	Rabbit	12126 mg/kg	

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Chemical name	Parameters	Species	Effective dose	Method
and ethylbenzene) -				
Acetone 67-64-1	Dermal LD50	Rabbit	> 15700 mg/kg	
Methyl ethyl ketone 78-93-3	Dermal LD50	Rabbit	> 5000 mg/kg	OECD 402
hydrocarbons, C9, aromats -	Dermal LD50	Rabbit	> 3160 mg/kg	OECD 402
Cyclopentanone 120-92-3	Dermal LD50	Rabbit	> 3160 mg/kg	
Isopropyl alcohol 67-63-0	Dermal LD50	Rabbit	> 10000 mg/kg	OECD 402
2-Butoxyethanol 111-76-2	Dermal LD50	Guinea pig	> 2000 mg/kg	OECD 402
Ethyl alcohol 64-17-5	Dermal LD50	Rabbit	> 2000 mg/kg	OECD 402
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates -	Dermal LD50	Rabbit	> 2000 mg/kg	OECD 402
1-Butanol 71-36-3	Dermal LD50	Rabbit	3430 mg/kg	OECD 402
Methanol 67-56-1	Dermal LD50	Rabbit	15840 mg/kg	
Ethyl acetate 141-78-6	Dermal LD50	Rabbit	> 20000 mg/kg	
Toluene 108-88-3	Dermal LD50	Rabbit	> 5000 mg/kg	
Isopropyl acetate 108-21-4	Dermal LD50	Rabbit	> 17436 mg/kg	

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
n-Butyl acetate 123-86-4	Inhalation LC50	Rat	23.4 mg/m <sup>3</sup>	4 h	OECD 403
Propylene glycol monomethyl ether 107-98-2	Inhalation LC50	Rat	36.7 mg/L	4 h	OECD 403
xylene (reaction product of xylene and ethylbenzene) -	Inhalation LC50	Rat	27124 mg/m <sup>3</sup>	4 h	
Acetone 67-64-1	Inhalation LC50	Rat	76 mg/L	4 h	
Methyl ethyl ketone 78-93-3	Inhalation LC50	Rat	34 g/m <sup>3</sup>	4 h	
Cyclopentanone 120-92-3	Inhalation LC50	Rat	>= 19.5 mg/L	4 h	
Isopropyl alcohol 67-63-0	Inhalation LC50	Rat	> 25 mg/L	4 h	OECD 403
2-Butoxyethanol 111-76-2	Inhalation LC0	Guinea pig	> 3.1 mg/L	1 h	OECD 403
Ethyl alcohol 64-17-5	Inhalation LC50	Rat	51 mg/L	4 h	OECD 403
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, <	Inhalation LC50	Rat	> 5000 mg/m <sup>3</sup>	8 h	OECD 403



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Chemical name	Parameters	Species	Effective dose	Exposure time	Method
2% aromates -					
1-Butanol 71-36-3	Inhalation LC50	Rat	> 8000 ppm	4 h	OECD 403
Methanol 67-56-1	Inhalation LC50	Rat	128.2 mg/L	4 h	
Ethyl acetate 141-78-6	Inhalation LC50	Rat	4000 ppm	4 h	
Toluene 108-88-3	Inhalation LC50	Rat	28.1 mg/L	4 h	OECD 403
Ethyl (S)-2-hydroxypropionate 687-47-8	Inhalation LC50	Rat	> 5.4 mg/L	4 h	OECD 403
Isopropyl acetate 108-21-4	Inhalation LC50	Rat	50600 mg/m <sup>3</sup>	8 h	

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation:	Irritating to skin.
Serious eye damage/eye irritation:	Causes burns. Risk of serious damage to eyes.
Respiratory or skin sensitization:	No information available.
Germ cell mutagenicity:	No information available.
Carcinogenicity:	No information available.
Reproductive toxicity:	No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Toluene	Repr. 2

STOT - single exposure: May cause respiratory irritation. May cause drowsiness or dizziness.

Chemical name	Exposure route	Target Organs
Methanol 67-56-1	Oral	Eye kidney

STOT - repeated exposure: No information available.

Chemical name	Exposure route	Target Organs
xylene (reaction product of xylene and ethylbenzene)	Inhalation	auditory organs

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Chemical name	Exposure route	Target Organs
-		
Toluene 108-88-3	Inhalation	nervous system

Aspiration hazard:

May be fatal if swallowed and enters airways.

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

No information available.

### 11.2.2. Other information

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecotoxicity: Harmful to aquatic life with long lasting effects.

fish toxicity:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
n-Butyl acetate 123-86-4	LC50	Pimephales promelas	17 - 19 mg/L	96 h	OECD 203
Propylene glycol monomethyl ether acetate 108-65-6	LC50	Pimephales promelas	161 mg/L	96 h	
Propylene glycol monomethyl ether 107-98-2	LC50	Leuciscus idus	4600 - 10000 mg/L	96 h	DIN 38412
xylene (reaction product of xylene and ethylbenzene) -	LC50	Oncorhynchus mykiss	2.6 mg/L	96 h	OECD 203
Acetone 67-64-1	LC50	Oncorhynchus mykiss	5540 mg/L	96 h	
Methyl ethyl ketone 78-93-3	LC50	Pimephales promelas	3130 - 3320 mg/L	96 h	OECD 203
hydrocarbons, C9, aromats -	LC50	Oncorhynchus mykiss	9.22 mg/L	96 h	
Cyclopentanone 120-92-3	LC50	Oncorhynchus mykiss	> 100 mg/L	96 h	
Isopropyl alcohol 67-63-0	LC50	Pimephales promelas	9640 mg/L	96 h	OECD 203
2-Butoxyethanol 111-76-2	LC50	Lepomis macrochirus	1490 mg/L	96 h	OECD 203
Ethyl alcohol 64-17-5	LC50	Pimephales promelas	15300 mg/L	96 h	
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, <	LL50	Oncorhynchus mykiss	10 - 30 mg/L	96 h	

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Chemical name	Parameter	Species	Effective dose	Exposure time	Method
2% aromates -					
1-Butanol 71-36-3	LC50	Pimephales promelas	1376 mg/L	96 h	OECD 203
Methanol 67-56-1	LC50	Lepomis macrochirus	15400 mg/L	96 h	
Ethyl acetate 141-78-6	LC50 NOEC	Pimephales promelas	220 - 250 mg/L > 9.65 mg/L	96 h 32 d	
Toluene 108-88-3	LC50 NOEC	Oncorhynchus kisutch	5.8 mg/L 1.39 mg/L	96 h 40 d	
Ethyl (S)-2-hydroxypropionate 687-47-8	LC50	Brachydanio rerio	320 mg/L	96 h	OECD 203
Isopropyl acetate 108-21-4	LC50		265 mg/L	48 h	

toxicity to crustacea:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
n-Butyl acetate 123-86-4	EC50	Daphnia magna	44 mg/L	48 h	OECD 202
Propylene glycol monomethyl ether acetate 108-65-6	EC50	Daphnia magna	> 500 mg/L	48 h	
Propylene glycol monomethyl ether 107-98-2	EC50	Daphnia magna	23300 mg/L	48 h	
xylene (reaction product of xylene and ethylbenzene) -	LC 50	Daphnia magna	1.0 mg/L	24 h	OECD 202
Acetone 67-64-1	EC50 NOEC	Daphnia pulex	8800 mg/L 2212 mg/L	48 h 28 d	
Methyl ethyl ketone 78-93-3	EC50	Daphnia magna	> 520 mg/L	48 h	OECD 202
hydrocarbons, C9, aromats -	EC50	Daphnia magna	6.14 mg/L	48 h	
Isopropyl alcohol 67-63-0	EC50	Daphnia magna	13299 mg/L	48 h	OECD 202
2-Butoxyethanol 111-76-2	EC50	Daphnia magna	1550 mg/L	48 h	OECD 202
Ethyl alcohol 64-17-5	EC50	Daphnia magna	12340 mg/L	48 h	
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates -	EL50	Daphnia magna	22 - 46 mg/L	48 h	
1-Butanol 71-36-3	EC50	Daphnia magna	1328 mg/L	48 h	OECD 202
Methanol 67-56-1	EC50	Daphnia magna	18260 mg/L	96 h	
Ethyl acetate 141-78-6	EC50	Daphnia magna	560 mg/L 2.4 mg/L	48 h 21 d	- OECD 211
Toluene 108-88-3	EC50	Cerodaphnia dubia	3.78 mg/L	48 h	

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Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Ethyl (S)-2-hydroxypropionate 687-47-8	EC50	Daphnia magna	683 mg/L	48 h	OECD 202
Isopropyl acetate 108-21-4	EC50	Daphnia magna	1260 mg/L	72 h	

Algae Toxicity:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
n-Butyl acetate 123-86-4	EC50	Desmodesmus subspicatus	674.7 mg/L	72 h	
Propylene glycol monomethyl ether acetate 108-65-6	EC50	Selenastrum capricornutum	> 1000 mg/L	72 h	OECD 201
Propylene glycol monomethyl ether 107-98-2	EC50	Pseudokirchneriella subcapitata	> 1000 mg/L	7 d	OECD 201
xylene (reaction product of xylene and ethylbenzene) -	EC50	Selenastrum capricornutum	2.2 mg/L	73 h	OECD 201
Acetone 67-64-1	NOEC	Procoentrum minimum	430 mg/L	96 h	
Methyl ethyl ketone 78-93-3	EC50	Pseudokirchneriella subcapitata	1972 mg/L	72 h	OECD 201
hydrocarbons, C9, aromats -	EL50	Pseudokirchneriella subcapitata	2.6 - 2.9 mg/L	72 h	
Isopropyl alcohol 67-63-0	EC50	Desmodesmus subspicatus	> 1000 mg/L	72 h	OECD 201
2-Butoxyethanol 111-76-2	EC50	Pseudokirchneriella subcapitata	> 900 mg/L	72 h	OECD 201
Ethyl alcohol 64-17-5	EC50	Chlorella vulgaris	275 mg/L	72 h	OECD 201
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates -	EL50	Pseudokirchneriella subcapitata	> 1000 mg/L	72 h	
1-Butanol 71-36-3	EC50	Pseudokirchneriella subcapitata	225mg/L	96 h	
Methanol 67-56-1	ErC50	Pseudokirchneriella subcapitata	22000 mg/L	96 h	
Ethyl acetate 141-78-6	EC50	Desmodesmus subspicatus	5600 mg/L > 100 mg/L	48 h 72 h	DIN 38412 OECD 201
Toluene 108-88-3	EC50	Chlorella vulgaris	134 mg/L	72 h	
Ethyl (S)-2-hydroxypropionate 687-47-8	EC50	Pseudokirchneriella subcapitata	2200 mg/L	70 h	OECD 201
Isopropyl acetate 108-21-4	EC50	Scenedesmus quadricauda	165 mg/L	48 h	

Bacteria toxicity:

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
Propylene glycol monomethyl	EC10	activated sludge	> 1000 mg/L	0.5 h	

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Chemical name	Parameters	Species	Effective dose	Exposure time	Method
ether acetate 108-65-6					
Propylene glycol monomethyl ether 107-98-2	EC50	activated sludge	> 1000 mg/L	3 h	
xylene (reaction product of xylene and ethylbenzene) -	NOEC	activated sludge	16 mg/L	28 d	OECD 301 F
Acetone 67-64-1	EC 12	activated sludge	1000 mg/L	30 min.	
Methyl ethyl ketone 78-93-3	EC0	pseudomonas putida	1150 mg/L	16 h	DIN 38412
2-Butoxyethanol 111-76-2	EC0	pseudomonas putida	> 700 mg/L	16 h	DIN 38412 part 8
1-Butanol 71-36-3	EC10	pseudomonas putida	2476 mg/L	17 h	DIN 38412
Ethyl acetate 141-78-6	EC 50	Photobacterium phosphoreum	5870 mg/L	15 min.	OECD 201

## 12.2. Persistence and degradability

Persistence and degradability:

Chemical name	degradation rate	test duration	Rapidly biodegradable	Remarks	Method
n-Butyl acetate 123-86-4	23 %	28 d	Yes		
Propylene glycol monomethyl ether acetate 108-65-6	83 %	28 d	Yes	Aerobic biological treatment	OECD 301 F
Propylene glycol monomethyl ether 107-98-2	96 %	28 d	Yes	Aerobic biological treatment	
xylene (reaction product of xylene and ethylbenzene) -	90 %	28 d	Yes		
Acetone 67-64-1	91 %	28 d	Yes	Aerobic biological treatment	
Methyl ethyl ketone 78-93-3	98 %	28 d	Yes	Aerobic biological treatment	OECD 301 D
hydrocarbons, C9, aromats -			Yes		
Isopropyl alcohol 67-63-0	53 %	5 d	Yes		
2-Butoxyethanol 111-76-2	90.4 %	28 d	Yes	Aerobic biological treatment	DIN 301 B
Ethyl alcohol 64-17-5	97 %	28 d	Yes	Aerobic biological treatment	OECD 301 B
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates	89 %	28 d	Yes		

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Chemical name	degradation rate	test duration	Rapidly biodegradable	Remarks	Method
-					
1-Butanol 71-36-3	92 %	20 d	Yes	Aerobic biological treatment	
Methanol 67-56-1	97 %	20 d	Yes		
Ethyl acetate 141-78-6	79 %	20 d	Yes		OECD 301 D
Toluene 108-88-3	81 %	5 d	Yes		
Ethyl (S)-2-hydroxypropionate 687-47-8	85 %	28 d	Yes		

## 12.3. Bioaccumulative potential

Bioaccumulation:

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
n-Butyl acetate 123-86-4	1.81	15
Propylene glycol monomethyl ether acetate 108-65-6	0.43	< 100
Propylene glycol monomethyl ether 107-98-2	0.37	<2
xylene (reaction product of xylene and ethylbenzene) -	3.16	25.9
Acetone 67-64-1	-0.24	0.69
Methyl ethyl ketone 78-93-3	0.3	<= 500
Isopropyl alcohol 67-63-0	0.05	< 500
2-Butoxyethanol 111-76-2	0.81	3.2
Ethyl alcohol 64-17-5	-0.32	0.66
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates -	> 4	
1-Butanol 71-36-3	0.785	0.64
Methanol 67-56-1	-0.77	<10
Ethyl acetate 141-78-6	0.6	30
Toluene 108-88-3	2.7	90
Ethyl (S)-2-hydroxypropionate 687-47-8	0.31	
Isopropyl acetate 108-21-4	1.03	

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## 12.4. Mobility in soil

Mobility in soil: No information available.

Mobility: No information available.

## 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment:

Chemical name	PBT and vPvB assessment
n-Butyl acetate 123-86-4	The substance is not PBT / vPvB
Propylene glycol monomethyl ether acetate 108-65-6	The substance is not PBT / vPvB
Propylene glycol monomethyl ether 107-98-2	The substance is not PBT / vPvB
Acetone 67-64-1	The substance is not PBT / vPvB
Methyl ethyl ketone 78-93-3	The substance is not PBT / vPvB
hydrocarbons, C9, aromats -	The substance is not PBT / vPvB
Cyclopentanone 120-92-3	The substance is not PBT / vPvB
Isopropyl alcohol 67-63-0	The substance is not PBT / vPvB
2-Butoxyethanol 111-76-2	The substance is not PBT / vPvB
Ethyl alcohol 64-17-5	The substance is not PBT / vPvB
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates -	The substance is not PBT / vPvB
1-Butanol 71-36-3	The substance is not PBT / vPvB
Methanol 67-56-1	The substance is not PBT / vPvB
Ethyl acetate 141-78-6	The substance is not PBT / vPvB
Toluene 108-88-3	The substance is not PBT / vPvB
Ethyl (S)-2-hydroxypropionate 687-47-8	The substance is not PBT / vPvB
Isopropyl acetate 108-21-4	The substance is not PBT / vPvB

## 12.6. Endocrine disrupting properties.

No information available.

## 12.7. Other adverse effects.

No information available.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste from residues/unused products: Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging: Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Waste codes / waste designations according to EWC / AVV: 07 01 04\* (other organic solvents, washing liquids and mother liquors)

## SECTION 14: Transport information

### 14.1. UN number

ADR:	UN1263
RID:	UN1263
IMDG:	UN1263
IATA:	UN1263

### 14.2 UN proper shipping name

ADR:	PAINT
UN1263, PAINT, 3, II	

RID:	PAINT
UN1263, PAINT, 3, II	

IMDG:	PAINT
UN1263, PAINT, 3, II, (-10°C C.C.)	

IATA:	PAINT
UN1263, PAINT, 3, II	

### 14.3. Transport hazard class(es)

ADR:	3
Hazard label(s)	3
Classification code	F1
Hazard identification number (Kemler No.)	33
Tunnel restriction code	(D/E)
Limited quantity (LQ)	5 L
ADR excepted quantity	E2

RID:	3
Labels	3
Classification code	F1

IMDG:	3
Hazard label(s)	3
Limited quantity (LQ)	5 L



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IMDG Excepted Quantity E2  
EmS-No F-E, S-E

IATA: 3  
Hazard label(s) 3  
IATA Excepted Quantity E2

## 14.4. Packing group

ADR: II  
RID: II  
IMDG: II  
IATA: II

## 14.5. Environmental hazards

ADR: Not regulated  
RID: Not regulated  
IMDG: no marine pollutant  
IATA: Not regulated

## 14.6. Special precautions for user

ADR:  
Special Provisions: 163, 640C, 650, 367  
RID:  
Special Provisions: 163, 640C, 650, 367  
IMDG:  
Special Provisions: 163, 367  
IATA:  
Special Provisions: A3, A72, A192  
ERG Code 3L

## 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### European Union:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:

- This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Substance subject to authorization per REACH Annex XIV	Restricted substance per REACH Annex XVII
Acetone		3

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67-64-1		40
Methyl ethyl ketone 78-93-3		3
hydrocarbons, C9, aromats -		3. 28. 29. 40.
Cyclopentanone 120-92-3		75.
Isopropyl alcohol 67-63-0		3 40
2-Butoxyethanol 111-76-2		75.
hydrocarbons, C9 - 10, n.alcanes, i-alcanes, cyclics, < 2% aromates -		28. 29.
1-Butanol 71-36-3		75.
Methanol 67-56-1		69.
Ethyl acetate 141-78-6		3 40
Toluene 108-88-3		48. 75.
Ethyl (S)-2-hydroxypropionate 687-47-8		75.
Isopropyl acetate 108-21-4		75.

Persistent Organic Pollutants: Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU):

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Named dangerous substances per Seveso Directive (2012/18/EU):

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Methanol 67-56-1	500	5000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009: Not applicable

volatile organic compounds (VOC) content:

acc. reg. 2010/75/EG:

100 %

acc. reg. 2004/42/EG (Decopaint):

836 g/L

## National regulations:

Denmark: \_\_\_\_\_

Chemical name	Denmark - MAL
n-Butyl acetate	14 m3/10 g substance MAL factor

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123-86-4	>0 % by weight [1]
Propylene glycol monomethyl ether acetate 108-65-6	19 m3/10 g substance MAL factor >0 % by weight [1]
Acetone 67-64-1	23 m3/10 g substance MAL factor >0 % by weight [1]
Methyl ethyl ketone 78-93-3	48 m3/10 g substance MAL factor >0 % by weight [1]
Cyclopentanone 120-92-3	14 m3/10 g substance MAL factor >0 % by weight [1]
Isopropyl alcohol 67-63-0	29 m3/10 g substance MAL factor >0 % by weight [1]
2-Butoxyethanol 111-76-2	25 m3/10 g substance MAL factor ≥10.0 % by weight [3]
Ethyl alcohol 64-17-5	7 m3/10 g substance MAL factor >0 % by weight [1]
Methanol 67-56-1	54 m3/10 g substance MAL factor ≥1.0 - 20.0 % by weight [3] ≥20.0 % by weight [6]
Ethyl acetate 141-78-6	13 m3/10 g substance MAL factor >0 % by weight [1]
Toluene 108-88-3	74 m3/10 g substance MAL factor ≥10.0 % by weight [3]
Isopropyl acetate 108-21-4	17 m3/10 g substance MAL factor >0 % by weight [1]

Germany: \_\_\_\_\_

Water hazard class (WGK): obviously hazardous to water (WGK 2) - Classification according to AwSV

Chemical name	WGK Classification (AwSV)	ID number
n-Butyl acetate 123-86-4	1	42
Propylene glycol monomethyl ether acetate 108-65-6	1	5033
Propylene glycol monomethyl ether 107-98-2	1	1597
xylene (reaction product of xylene and ethylbenzene) -	2	206
Acetone 67-64-1	1	6
Methyl ethyl ketone 78-93-3	1	150
hydrocarbons, C9, aromats -	2	-
Cyclopentanone 120-92-3	1	69
Isopropyl alcohol 67-63-0	1	135
2-Butoxyethanol 111-76-2	1	47
Ethyl alcohol 64-17-5	1	96
hydrocarbons, C9 - 10, n.alcanes, i-alcanes,	1	-

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Chemical name	WGK Classification (AwSV)	ID number
cyclics, < 2% aromates -		
1-Butanol 71-36-3	1	39
Methanol 67-56-1	2	145
Ethyl acetate 141-78-6	1	95
Toluene 108-88-3	2	194
Ethyl (S)-2-hydroxypropionate 687-47-8	1	2809
Isopropyl acetate 108-21-4	1	136

TA Luft (German Air Pollution Control Regulation):

org. substances (Ziffer 5.2.5):

85 - 90%

org. subst. (digit 5.2.5) class I:

10 - 15%

Storage class (TRGS 510): 3 • LGK3 - Flammable liquids

France:

Occupational Illnesses (R-463-3, France):

Chemical name	French RG number
n-Butyl acetate 123-86-4	RG 84
Propylene glycol monomethyl ether acetate 108-65-6	RG 84
Propylene glycol monomethyl ether 107-98-2	RG 84
Acetone 67-64-1	RG 84
Methyl ethyl ketone 78-93-3	RG 84
hydrocarbons, C9, aromats -	RG 84
Cyclopentanone 120-92-3	RG 84
Isopropyl alcohol 67-63-0	RG 84
2-Butoxyethanol 111-76-2	RG 84
Ethyl alcohol 64-17-5	RG 84
hydrocarbons, C9 - 10, n.alkanes, i-alkanes, cyclics, < 2% aromates -	RG 84
1-Butanol 71-36-3	RG 84
Methanol 67-56-1	RG 84

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Chemical name	French RG number
Ethyl acetate 141-78-6	RG 84
Toluene 108-88-3	RG 4bis, RG 84
Ethyl (S)-2-hydroxypropionate 687-47-8	RG 84
Isopropyl acetate 108-21-4	RG 84

RG 4bis - Gastrointestinal conditions caused by benzene, toluene, xylenes, and any products containing them  
RG 84 - Occupational conditions caused by liquid organic solvents

Netherlands:

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins	ZZS list: SVHC	(p)ZZS list: potential SVHC
Ethyl alcohol 64-17-5	Present X		Fertility Category 1A Development Category 1A Can be harmful via breastfeeding		
Toluene 108-88-3			Development Category 2		

Austria:

Flammable Liquids Regulations, VbF: Flammable liquids: A1

Switzerland:

VOC content: acc. VOCV CH 814.018, att. 1: 100 %

## International Inventories:

TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

## Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

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PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

## 15.2. Chemical safety assessment

Chemical Safety Report: No information available

## SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet:

Full text of H-Statements referred to under section 3:

EUH066 - Repeated exposure may cause skin dryness or cracking

H225 - Highly flammable liquid and vapor

H226 - Flammable liquid and vapor

H301 - Toxic if swallowed

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H311 - Toxic in contact with skin

H312 - Harmful in contact with skin

H315 - Causes skin irritation

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H361d - Suspected of damaging the unborn child

H370 - Causes damage to organs

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

Legend:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

ADR: European agreement concerning the international carriage of dangerous goods by road  
(Accord européen relatif transport des marchandises dangereuses par route)

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany)

BCF: Bio-Concentration Factor

BOD(5): Biochemical oxygen demand (within 5 days)

CAS: Chemical Abstract Service

CLP: Classification, Labelling and Packaging

CMR: Carcinogenic, Mutagenic, toxic for Reproduction

DIN: German Standards Institute / German industrial norm

DNEL: Derived No Effect Level

DOC: Dissolved organic carbon

EAK/ AVV: European waste catalogue/ waste directory-regulation

EC50: Effective Concentration 50%

ECHA: European Chemical Agency

EINECS: European Inventory of Existing Commercial Chemical Substances

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

IATA: International Air Transport Association

IC50: Inhibition Concentration 50%

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IMDG: International Maritime Dangerous Goods Code  
LC50: Lethal Concentration 50% - LD50: Lethal dose 50%  
MAK: Treshold limit values Germany  
NLP: No Longer Polymers  
NOAEC: No Observed Adverse Effect Concentration  
NOAEL: No Observed Adverse Effect Level  
OECD: Organization for Economic Cooperation and Development  
PBT: persistent, bioaccumulative, toxic  
PC: Product category  
PNEC: Predicted No Effect Concentration  
REACH: Registration, Evaluation and Authorization of Chemicals  
RID: Regulations concerning the international carriage of dangerous goods by rail  
(Règlement International concernant le transport de marchandises dangereuses par chemin de fer)  
STEL: Short-term Exposure Limit  
STP: Sewage treatment plant  
SVHC: Substance of Very High Concern  
TLV: Threshold Limit Value  
TWA: Time Weighted Average  
UN: United Nations  
VOC: Volatile Organic Compounds  
vPvB: very persistent, very bioaccumulative

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ceiling: Maximum limit value

\* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS:

European Chemicals Agency (ECHA)

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AELG(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



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Kluthe Lösin 100 - 061010330000

Revision Number: 1

Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

Revision date: 23-Aug-2021

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006:

## Disclaimer:

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**End of Safety Data Sheet**